D. COMPREHENSIVE PLAN

Multimedia planning and execution is built around two phases or processes: scoping the project (which includes understanding the interpretive themes, research, environment, content identification and gathering, client review and developing a thorough design brief) and developing the interactive (which includes design, content conversion, interface development, programming and deployment). Over the last fifteen plus years of media development we have developed a process that allows for an active dialog between Somerset Group and our clients to partner their needs and vision with our creative capabilities and technical expertise.

Somerset Group follows a standardized process developed from our experience in creating interactive media programs for the National Park Service. This production methodology allows our clients maximum input and visibility over the creative process and production of the interactive product (see Figure 1). The full process includes project initiation, initial planning; content definition; development of outline and product flow; internal and external research; development of project design brief; initial design development; revisions and finalization of design and interface metaphor; development of interface; prototyping; graphical screen production; programming; testing (including in-house, client and focus group); documentation; and delivery of the final product. The importance of these stages and the relative magnitude of each vary, depending upon the client's requirements, scope of project and the amount of content to be researched and incorporated into the final program. A general discussion of these development steps follows.

The planning and content definition stage is done in close collaboration with the client. This stage defines the requirements, the outline of the content, the intended audience and possible interface approaches. This information is incorporated into a detailed design brief to direct creative development and design.

After the pre-production information is gathered, Somerset develops a Conceptual Design and Production Plan for the projects. Somerset's development process for interactive and web-based media is driven by a flow chart we call the Master Organization and Content Definition or MOCD (Figure 2). This illustrates the flow of the various modules, specific screen content, and interconnectivity of the screens within a project. The interface design is defined by the MOCD—the number of levels necessary, how the user can access the various modules, what help functions are needed, what sections may need to be self running, etc. This document shows the relationship of individual sections and the user-driven navigational flow—the most critical element of any interactive project. Developing this chart encapsulates the overall content and flow of the project and is critical for the designers and programmers to understand the scope and interaction of the project. The Production Plan also includes Somerset's Design Brief (Figure 3), which gives a complete description of the project and establishes the creative approach. The MOCD and Design Brief provide the designers with all the information they need to begin design and development of the visual elements for the project.

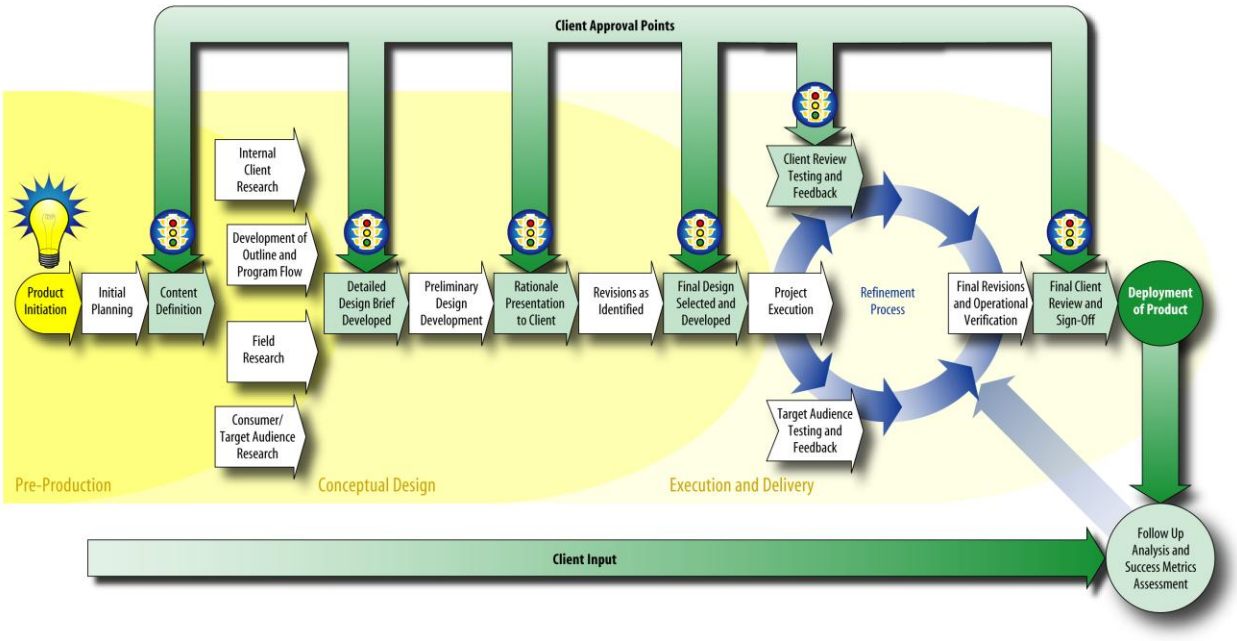

Figure 1. Somerset Design Process

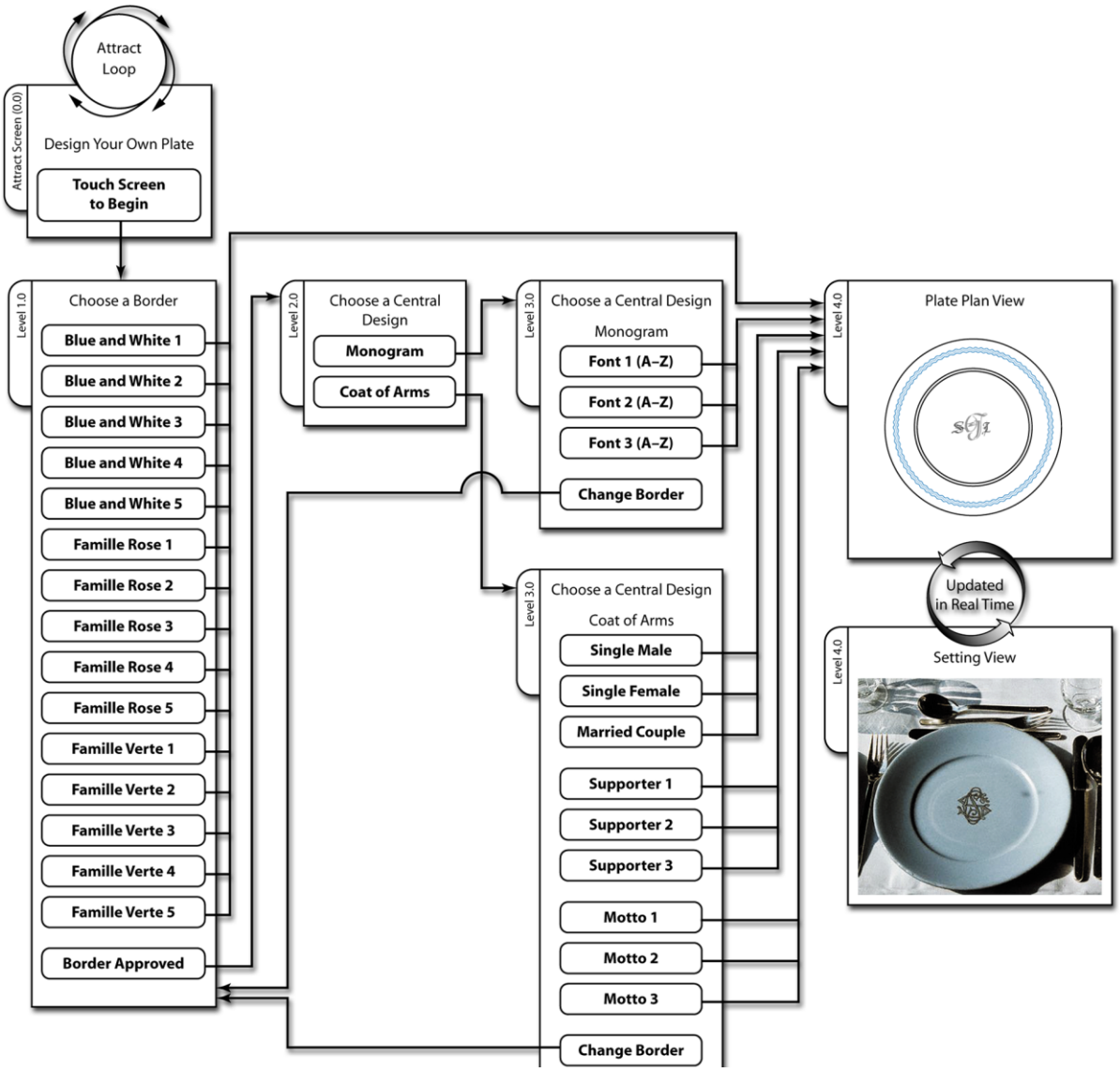

Figure 2. Sample MOCD

SOMERSET GROUP

IN-HOUSE DESIGN BRIEFING

Client:	
Point of Contact:	
Point of Contact:	
Point of Contact:	
Point of Contact:	
Point of Contact:	

Task Description:

Job/Project Title:	
Somerset Job Number:	Budget Source:
Project Initiation Date:	**Project Due Date:**

WHO are we trying to reach? (Target Audience)

WHAT is the project object? (Briefly define the desired results)

WHEN is a realistic deadline for our solutions to be presented? (Internal and client presentations)

WHERE is the creative running? (Medium and Media)

HOW does the clients product/service compare to the competition? (Pros and Cons Briefly)

WHY does the target audience use the clients product or service?

STRATEGY What is the best selling strategy for this assignment?

ANYTHING ELSE?

	Hrs. Alctd.	Initial
Project Manager:		
Creative Director:		
Art Director:		
Art Director:		
Other:		
Other:		
Other:		
Other:		

Figure 3. Somerset Design Brief

The graphical look of the project is based on potential metaphors that are discovered in the content to be presented and how the intended audience will interact with the program, while remaining consistent with the NPS Graphic Identity Guidelines and any physical environment for a kiosk project. Consistent placement of navigational controls and easily understood navigational paths are primary considerations in overall screen design. Users quickly adapt to basic way finding methodologies, so consistency of these control elements helps insure a positive user experience.

Once the Conceptual Design and Production Plan have been approved, all screen layouts are developed and incorporated into a working prototype. To allow the screen designs to be easily reviewed by the park, Somerset hosts layouts, program components and draft designs on the secure client area of our corporate web site. Park personnel are provided access to this site to review all components as they are being developed. For larger projects, a basic working mock-up will be provided to the park and HFC personnel for review on CD-ROMs or DVDs. The Work-in-Progress Review can be usually be conducted by teleconference to discuss park personnel feedback on the design and interactive functions of the projects.

After approval of the Work-in-Progress Review, Somerset completes the programming and assembly of the projects. We then send out final fully functional prototypes for reviews and final comments. Somerset also performs extensive in house testing and refinement. After Somerset concludes testing, the program is ready for a Fully Operational Interactive Program Review.

After receiving final approval from the park, Somerset masters the program on CD-ROM or DVD and or installs on the target computer. We will return all source materials and deliver the working files, the deliverable CD-ROMs or DVDs, Program Handbooks and all final reports to NPS.

Somerset Group has the full range of capabilities to perform the work under this effort. As a small company, our employees have multiple skills. In addition, over

our years in the industry we have developed a group of freelancers and consultants who we can call upon to augment in-house capabilities, either for specialized needs or for surge capabilities. Our software skills include experience with the following industry-standard programs:

Director 11
Adobe Shockwave Player
Flash CS3 Professional
Photoshop CS3
Illustrator CS3
Dreamweaver CS3
Acrobat 8 Professional
After Effects CS3 Professional
Final Cut Pro
Maya
Lightwave 3D
Fireworks CS3
InDesign CS3
Corel Draw

Somerset recognizes that a task-order based support contract such as the proposed effort requires stringent controls and management of technical performance and schedules, especially when subcontractors or consultants may be involved. When Somerset accepts task orders on a fixed-price basis, we view from that point on that the highest priority is not profit, but to deliver to our customer (NPS) the promised high-quality products on schedule. To accomplish this, Somerset has a program approach that involves development and maintenance of a work breakdown structure (WBS) at the task level based on the task order proposal and the production plan. The program approach is focused

on extensive communications and task management controls that provide the Project Manager with feedback at the lowest subtask level trackable.

While the process has many steps, the basic goal of the WBS is to define and schedule all work elements at the level where performance can be tracked and deviations identified early enough in the process to take corrective action or institute work-arounds, redirection or refocusing of technical efforts. For each task order, we will integrate the Somerset staff on the project, and subcontractors and consultants if employed, into a cohesive project team. While individuals may concurrently support two or more task orders, it is important to separate the efforts such that trackability and accountability of the objectives and schedules of each task are clearly defined and maintained.

At an internal task order kick-off meeting, the Project Manager will allocate subtasks and hours based on the project plan-derived WBS. Progress schedules will be broken down to the level where performance is readily tracked at weekly project staff meetings. The weekly staff meetings are held for the dual purpose of maintaining the awareness of the Project Manager and all project team staff of the status of the task and providing feedback as to the evolution of the product. The meeting serves as a communication forum for early identification and resolution of program problems and issues and to monitor the quality of the work efforts.

Somerset has successfully managed projects involving subcontractors for many years. The key is always *teamwork* and communications, both within the team and with our customer. We will bring that broad experience to bear on our work for the park service. These projects have included utilizing freelance talent all over the world and coordinating multiple production schedules across multiple projects to meet clients' schedules while exceeding their expectations. While we are limited by our existing IDIQ contracts with the National Park Service on the

capabilities we can bring to the table, we have steadily expanded our portfolio of services to include master planning, exhibit planning, design, fabrication, media production and graphics production. These new capabilities also require greater project management and administration to ensure that we maintain the high standards we have established for the Somerset brand. Our goal is to be a full service environment design house that can leverage technology, creativity and innovation while retaining our customer satisfaction mandate. This growth has demanded that we be able to work across the spectrum of NPS requirements that exceed this IDIQ effort but it gives us insight into the totality of the requirements placed on us as a prime for a single component of a project or as a subcontractor providing support to a fabricator or exhibit designer. Put simply, we are growing our skills and knowledge base to meet the full spectrum of NPS requirements.

Somerset Group has produced pod cast-ready material for commercial clients and is currently working on a project that will involve numerous first person interviews that will be hosted to the client's web site and distributed to classrooms all over the world. There are audio and video pod casts and each requires a slightly different treatment. However, the basic approach involves developing the audio or video program, converting to mp3 or mp4 format, creating an XML file with the appropriate tags and hosting the files on a server with an RSS feed option. For example, in the case of audio, we have the tools to take existing content from a variety of audio formats and sources, process it to maximize sound quality and then produce the file in mp3 format to be hosted on a web site. The final file can be created using our production tools: Apple's Quicktime, iPodcaster Producer, or the freeware program Audacity. The files are tagged with xml code and then uploaded to a web server for as-needed download or as an RSS feed.

Somerset Group is experienced in taking existing audio files and making the necessary edits and conversions or, using our own capture gear, we can go on-site and capture first hand interviews and event audio using our field equipment and microphones. This includes a suite of microphones, DAT and solid-state recording hardware and in-the-field editing and production capabilities.

Somerset Group can also produce video pod casts as needed using both client-provided resources and on location production tools. We have both high definition and standard definition cameras and have produced content in a wide variety of formats. We have been producing commercial video products for over a decade for clients such as CSC Pinnacle, The National Children's Advocacy Center, U. S. Army, NASA and many others.

Where the scope of the project may require additional resources and personnel we will turn to our proven pool of freelance talent. As technology continues to grow and geographic location ceases to be a limitation on collaboration we have established a network of video, audio, production, animation, programming, and technical support resources can be tapped on an as needed basis to support specific projects. These decisions are made on a case-by-case basis depending on the specifics of a project and the scope of the requirements. As with previous NPS projects, we are acutely aware that each park and each task present unique opportunities and challenges. Somerset Group has strived to meet or exceed the parks expectations by providing suggestions for enhancement, alternative approaches or additional directions that enhance the visitor experience and improve the final product. We bring that same dedication to all our projects whether it be an audio tour, a video production or a touch screen kiosk.

An ongoing example of this type of multi-disciplined collaboration is an interactive program we are developing for a children's science museum (Figure 4). This program will utilize cutting edge interactive touch screens to allow the user to perform a virtual knee or heart bypass surgery. The production of this program has required the involvement of orthopedic and cardio thoracic surgeons as subject matter experts, CG modelers with experience in human anatomy, animators that can simulate soft tissue movements in close collaboration with our in-house team of audio engineers, designers and programmers. This project reaches across thousands of miles using video conferencing, teleconferences and the Internet to ensure accuracy of the product while maintaining schedule and quality.

Figure 4. Virtual Surgery Program in Development

Somerset Group is currently working with the North Alabama Veteran's Museum on a series of exhibits. One of these is the "Voices of History" project that we initiated with the museum as part of a two-year collaboration. We will be taping numerous veterans of World War II, Korean, and Vietnam in different settings and locations throughout the facility. These interviews will consist of stories and personal memories of these veterans of their time in the service, their experiences both good and bad, and any message they wish to leave future generations. The production will be shot in 1080p and edited with personal photos from the storyteller and images that we will gather from various public domain resources. These interviews will them be played back on a Somerset Group designed exhibit space that will combine interactive media with an immersive environment as well as artifacts that will be spotlighted during the video. The current scope calls for capturing approximately 100 interviews and presenting them in chronological groupings in the exhibit.

In addition to the "Voices of History" project for the site we will be adding the video content to a new NAVM web site for access by anyone interested in this living history. These interviews will be downloadable as video pod casts that can be incorporated into educational presentations by teachers and students.

We are also preparing video programs for Lava Lands National Park on volcanism, how magma flows and interacts under water, and how new land is formed from volcanic activity. These videos and one audio program are being developed for installation into the visitor's center in early January.

The world of interactive media and video production are merging and Somerset Group has stayed ahead of the convergence curve by staying ahead of technology integration of video, animation, rich media and immersive technologies to help provide our clients with resilient tools that communicate and educate.

Somerset Group understands and will abide by the Rights in Data clause included in this procurement. Somerset will view data it produces as a result of any task order by NPS as "work for hire" and all rights to that data will reside with the Government. Somerset also understands the importance of recognizing the rights of third parties to data that they hold the copyright to and will not include or incorporate any such data in projects it produces for NPS without obtaining the appropriate license or permission to use and incorporate such works.

The issue of accessibility for exhibits and programs continues to be an integral part of any project's requirements. Originally prompted by legislation and regulations such as ADA and Section 508, developers are becoming aware of the importance not of just meeting the requirements but of how to best make an engaging program for *all* potential users. Somerset's approach to reaching this goal has evolved as our understanding of the barriers encountered by the disabled has deepened and advancing technology has expanded options for solutions.

Somerset's earliest approach to enabling access included setting in-house standards for minimum type size for visually impaired and careful color selection to ensure enough contrast was included for color blindness.

An early project was done for ASRI, a DoD contractor, to develop a large web site that would serve as an information and recruitment tool. We wanted to ensure that the site would be attractive and intuitive to sighted visitors while working flawlessly with screen readers commonly used by the visually-impaired. The development process included extensive testing with text-only

browsers, actual screen readers, and testing by several visually impaired users who commonly used screen readers to navigate the internet. The result was a robust site that worked well for both the sighted and the visually-impaired.

We have also provided other solutions such as programs for Arches National Park which provided scrolling text for video segments in our interactive programs. Others, such as the kiosks we developed for the Dayton Aviation Heritage National Historic Park, included both screen text and a recorded narrative. Another solution included an optional screen reader, which could be toggled on and off. This was used for a kiosk at Stones River National Cemetery. All of these solutions, while helping those with sight challenges to use the programs did not address the issue of a severely visually-impaired or blind individual.

Our latest kiosk for the Thaddeus Kosciuszko National Memorial takes the approach of developing the program in two versions. The first is a standard interactive, touch screen program. The second is an "audio enhanced" version that relies on verbal descriptions and directions and can be used by someone who is blind. The program starts in the audio enhanced mode with a button on the screen which allows a visually capable individual to exit to the "standard," non-enhanced version. This program is nearing completion with a delivery date in early June.

Working on this program has prompted us to consider how to more seamlessly integrate these two versions into a single one that can be enjoyed by any visitor. Somerset is committed to exploring the constantly evolving technical options to enable broader access to museums and parks. We currently are working with corporate partners to couple artificial intelligence avatars with real-time location systems (RTLS) to create mobile or hand-held systems for the visually-impaired. Another avenue we are exploring is the use of the EZ Access system as developed by the University of Wisconsin – Madison. They have designed a keypad that can improve access by individuals who may have difficulty reaching or operating a touch screen. But whether such a device is used or we rely on a standard touch screen, careful interface design is critical to producing an

engaging and informative program. We continue to refine our design process to ensure our products are as inclusive as possible.